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ABSTRACT

This packet contains 29 lesson plans for integrated academic and vocational education courses. Lesson plans for the following courses are included: algebra, health occupations education, English, biology, laboratory mathematics, and health care sciences. Some of the topics covered are as follows: statistics, vital signs, graphing, ethics, special diets, facts and opinions, data analysis, physical assessment, Greek mathematics and architecture, the body, medical terminology, learning styles, scientific terminology, ecology research, and application of literature and technology to society. Lesson plans consist of lesson objectives, materials needed, activities, evaluation activities, listing of the integration partner course, essential elements, collaborative topics, and integration partner activities. (KC)

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ED 362 698

Integrated Lesson Plans

Socorro ISD

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CE 064 715

Course: Algebra I

Lesson Topic: Statistics

TAAS: 4.1, 12.2, 13.1

Lesson Objective: Students are able to convert temperatures from F° to C° to F°. Students will be able to create a graph to illustrate the raw data.

Materials: The data on temperatures from the Health Occupations Education I class, pencil and paper

Activities:

1. The student will convert the data temperatures.
2. The student will determine mean, media, mode, and range for Health Occupations Education I class data.

Evaluation Activity: The student will prepare and discuss a graphic representation of the class temperatures.

Integration Partner Course: Health Occupations Education I

Essential Elements: 75.84 (c)(1)(h), 75.84 (c)(1)(K)

Collaborative Topics: Temperature (Vital Signs)

Integration Partner Activity: Take and record temperatures.

Course: Health Occupations Education I **Lesson Topic:** Temperature: Vital signs

Essential Elements: 75.84 (c)(1)(H) Review techniques and normal parameters of vital signs
75.84 (c)(1)(K) Convert temperature to metric system

Lesson Objective: Students will take and record temperatures.

Materials:

1. *Diversified Health Occupations* text
2. Video: Med Com Assessing Temperature
3. Lab—thermometers: digital, glass, temp away

Activities: Time frame: three days

1. Define medical terminology related to temperature.
2. Discuss normal parameters of body temperature in disease and wellness.
3. Differentiate assessment skills for axial, rectal, and oral temperature.
4. Convert F^{o} temperature to C^{o}.
5. Record accurately on temperature graph.
6. Assign each student to investigate a disease related to temperature variation.

Evaluation Activity: Student will demonstrate ability to measure body temperature (oral, rectal, and axial) and record with 100% accuracy.

Integration Partner: Algebra I **TAAS:** M-4 concepts 4.1, 12.2, 13.1

Collaborative Topics:
Statistics: Frequency distribution table, mean, median, mode, range, choosing a type of graph appropriate for given data

Integration Partner Activity:

1. Construction of a frequency table
2. Calculation of mean, median, mode, range
3. Construction of a graph appropriate for the data given

Course: Algebra I/TAAS Lab

Lesson Topic: Expressing a concept using graphing/pictorial representation

TAAS: 13-1, 12-2
Concepts M-4

Lesson Objective: Students will be able to create pictorial representation of data.

Materials: Raw data provided by Health Occupations Department.

Activity: Devise a pictorial representation of the blood pressure data. The assignment is intended as an open-ended assignment. Diverse student responses are encouraged. Students must support the appropriateness of their representations and the conclusions that can be drawn.

Evaluation Activity: Presentation of oral and written reports explaining the pictorial representation of the given data.

Integration Partner: Health Occupations

Essential Elements: 75.84 (c)(1)(H)

Collaborative Topics: Vital signs: blood pressure

Integration Partner Activity: Collect and record blood pressures.

Course: Health Occupations Education I **Lesson Topic:** Blood pressure: vital signs

Essential Elements: 75.84 (c)(1)(H) Review techniques and normal parameters of vital signs.

Lesson Objective: Students will assess blood pressure utilizing sphygmomanometer and stethoscope

Materials:

1. *Diversified Health Occupations* text
2. Med Com video-Measuring Blood Pressure
3. Sphygmomanometer and stethoscope

Activities: Time frame: two days

1. Define medical terminology related to blood pressure.
2. Discuss normal parameters of blood pressure as it relates to disease and wellness.
3. Demonstrate method for assessing blood pressure.
4. View video: Assessing Blood Pressure.
5. Record accurately on TPR graph—blood pressure.
6. Discuss factors that affect blood pressure including: medications, exercise, time of day, age, and sex.
7. Practice assessment of blood pressure lab.

Evaluation Activity: Student will assess and record blood pressure of 10 classmates ± 2mm of Hg with 100% accuracy.

Integration Partner Course: Algebra I **TAAS:** Concepts M-4

Collaborative Topics: Creating pictorial representation of data gained in Health Occupations Education classes.

Integration Partner Activity: Devise pictorial representation of blood pressure data.

Course: English III **Lesson Topic:** Ethics

Essential elements: 4 (A-J) **TAAS:** RC 1-6; WC 1-7

Lesson Objective: Students will develop a set of principles dealing with what is morally right or wrong.

Materials:

1. Research on AIDS
2. Guest speaker from the city health department

Activity: Time frame: one to two weeks

1. Discuss facts about AIDS.
2. Research and report on people in the news who have AIDS.
3. Panel discussions on topics, such as, "Should the school divulge the names of students who have AIDS?"

Evaluation Activity: Presentations in the form of panel discussions.

Integration Partner Course: Health Occupations Education II

Essential Elements: 75.84 (a)(2)(K); (C)(1)(E) 75.84 (c)(1)(L) 75.84 (a)(1)(D)

Collaborative Topics:

1. Ethical behavior of health care workers
2. Differentiate between ethical and legal responsibilities

Integration Partner Activity: Define vocabulary of ethical and legal responsibility.

Course: Health Occupations Education II **Lesson Topic:** Ethics

Essential Elements: 75.84 (a)(2)(K); (c)(1)(E) Describe and identify ethical and legal responsibilities of health care delivery system.
75.84 (c)(1)(L) Identify components of quality patient care and financing of medical care.
75.84 (a)(1)(D) Prepare for effective citizenship and participate in democratic society.

Lesson Objective: Students will be able to list 6 basic rules of ethics of health care personnel.
Students will be able to differentiate between ethical and legal considerations.

Materials: 1. *Health Occupations Exploration and Career Planning,* Joan Bircherall, Mary Eileen Streight,
2. *Diversified Health Occupations,* 2nd edition, Louise Simmers.

Activity:

1. Describe ethical behavior of health workers.
2. Define vocabulary of ethics, civil law, confidentiality, malpractice, lawsuit, negligence, privileged communication.

Evaluation Activity: Students will divide into groups and prepare a skit on how to handle one of the following ethical problems:

1. Relative of yours asks for information on a co-worker who is a patient on your unit.
2. You see a fellow employee taking money from a patient's bedside table.
3. While working in the clinical lab, you find out that a prominent politician has a venereal disease.

Integration Partner Course: English III **TAAS :** RC 1-6; WC 1-7

Collaborative Topics:

1. Student Code of Conduct
2. Morals and ethics

Integration Partner Activity

1. Discuss facts about AIDS
2. Research and report on people in news who have AIDS
3. Issues of confidentiality

Course: Health Occupations Education II **Lesson Topic:** Special Diets

Essential Elements: 75.84 (c)(1)(H) Identify the basic anatomy and physiology of the eight body systems as they relate to health and disease.

Lesson Objective: Students will be able to name, describe, and explain purpose of at least eight therapeutic diets.

Materials:

1. *Diversified Health Occupations,* 2nd edition, Louise Simmers
2. Brown bag lunch from home

Activity: Time Frame: three weeks

1. Introduce components of and reason for therapeutic diets.
2. Keep a two-week food diary.

Evaluation Activity:

1. Brown bag lunch of a pregnancy diet.
2. Class presentation of projects on nutrition to Health Occupations Education I teachers

Integration Partner Courses: English III

Essential Elements: (c)(1)(A), (4)(C) **TAAS:** LA: RC 1-6, WC 1-7

Collaborative Topics:

1. Identify differences between fact and opinion.
2. Determine the meanings of words.

Integration Partner Activity:

1. Use a nutritionist as a guest speaker.
2. Read and discuss the novel *The Grapes of Wrath.*

Course: English III **Lesson Topic:** Fact and opinion

Essential Elements: (C)(1)(A); (4)(C) **TAAS:** RC 1-6; WC: 1-7

Lesson Objective: Students will be able to identify fact and opinion.

Materials:

1. *The Grapes of Wrath*
2. Library—research on nutrition

Activity:

1. Read and discuss the novel *The Grapes of Wrath.*
2. Go to the library and research proper nutrition.
3. Use a nutritionist as a guest speaker.
4. Prepare reports to be presented to the class—pre-natal care, proper nutrition during and after pregnancy.
5. Prepare charts listing the opinions the main characters in the novel had concerning nutrition; prepare charts listing the facts about proper nutrition.

Evaluation Activity:

1. Class presentation of projects on nutrition.
2. Composition in the form of a play—The student is "the doctor," and the main character in the novel is the patient, who is pregnant. The dialogue concerns proper diet.

Integration Partner Course: Health Occupations Education II

Essential Elements: 75.84 (c)(1)(H)

Collaborative Topics:

1. Nutrition
2. Special Diets

Integration Partner Activity: Introduce components of and reasons for therapeutic diets.

Course: Algebra I

Lesson Topic: Statistics: data analysis and graphing data

Lesson Objective: Make a frequency distribution table from given data. Make scattergram for the given data. Draw the line of best fit.

Materials: Data provided by Health Occupations Class.

Activity:
1. Data will be organized into a frequency distribution table.
2. Scattergram for the data will be drawn and plotted.
3. A line of best fit will be drawn if possible.

Evaluation Activity: Presentation of oral and written reports summarizing collection and analysis of given data.

Integration Partner Course: Health Occupations I

Essential Elements: 75.84 (c)(1)(I)

Collaborative Topics: Physical assessment: height and weight

Integration Partner Activity: Collect and record data on height and weight for a minimum of 50 people.

Course: Health Occupations Education I **Lesson Topic:** Physical assessment: height and weight

Essential Elements: 75.84 (c)(1)(I) Review anatomy, physiology, and pathophysiology of the body systems.

Lesson Objective: Students will measure and record the height and weight of infants, children, and adults.

Materials:

1. *Diversified Health Occupations*
2. Laboratory: baby seats, scale, metric measuring scale.

Activity: Time frame: two days

1. Define terminology related to nutrition status/disease/wellness.
2. Discuss relevancy of medical order of daily weights.
3. Demonstrate procedure.
4. Return demonstration.

Evaluation Activity: Students will assist with screening for height and weight at elementary school and record results accurately.

Integration Partner Course: Algebra I

Collaborative Topics: Scattergrams, line of best fit

Integration Partner Activity:

1. Construction of a scattergram.
2. Construction of line of best fit.

Course: Algebra II

Lesson Topic: Greek mathematics and architecture

Lesson Objective: Students will be able to recognize Greek influence on architecture.

Materials: Health Occupations Education's list of Greek mathematicians and pictures of classic Greek architecture.

Activity: Time frame: three to five days

1. Introduce Greek mathematicians (Pythagoreus).
2. Introduce pentagram proportions, golden rectangle (relationship of 5 sides lengths).
3. Show examples of how this applied to architectural models.
4. Have students find examples of these on modern architectural models.

Optional Activity: Introduction and review of metric system.

Evaluation Activity: Show and demonstrate examples from modern architecture.

Integration Partner Course: English III

Essential Elements: (2)(D)(G)

TAAS: RC 1 and 5

Collaborative Topics: Vocabulary from Greek (prefixes and suffixes)

Integration Partner Activity: Identify and define words from Greek.

Course: English III **Lesson Topic:** Vocabulary from Greek

Essential Elements: (2)(D)(G) **TAAS:** RC 1 and 5

Lesson Objective: Students will be able to identify and define words from Greek.

Materials: *Vocabulary for the College Bound*, Aamsco Publishing Company.

Activity:

1. Introduce vocabulary from Greek.
2. Using their Algebra II texts, "brainstorm" on vocabulary found in the text that comes from the Greek
3. Make "picture charts" illustrating the vocabulary words.

Evaluation Activity:

1. Vocabulary test
2. Oral presentations

Integration Partner Course: Algebra II

Collaborative Topics: Greek prefixes and suffixes

Integration Partner Activity: Oral presentation of projects on Greek mathematicians and architecture

Course: Health Occupations Education I **Lesson Topic:** Respiration: vital signs

Essential Elements: 75.84 (c)(1)(H) Review techniques and normal parameters of vital signs

Lesson Objective: Students will take and record respirations

Materials:

1. *Diversified Health Occupations* text
2. Video: Med Com- Assessing Respirations
3. Lab aids

Activities: Time frame: one day

1. Define medical terminology related to respiration.
2. Discuss normal parameters of respiration in disease and wellness.
3. View video: Assessing Respirations.
4. Practice Lab: demonstrate and return demonstration.
5. Record respiratory rate accurately on TPR graph.
6. Discuss factors that affect vital signs.

Evaluation Activity: Present documentation of respiratory rate of one family unit for at least one week.

Integration Partner Course: Algebra I **TAAS:** M-4

Collaborative Topics: Frequency distribution tables, mean, median, mode, range, histograms

Integration Partner Activity:

1. Construction of a frequency table.
2. Construction of a histogram.
3. Calculation of a mean, median, mode, range.

Course: Health Occupations Education I **Lesson Topic:** Pulse: vital signs

Essential Elements: 75.84 (c)(1)(H) Demonstate correct technique for taking vital signs

Lesson Objective: Students will take and record a pulse.

Materials:

1. *Diversified Health Occupations* text
2. Video: Med Com- Assessing Pulse
3. Lab: pulsameter

Activities: Time frame: one day

1. Define medical terminology related to pulse.
2. Discuss normal parameters of pulse as it relates to disease and wellness.
3. Locate major pulse points on human body.
4. Demonstate method for measuring pulse.
5. View video: Assessing Pulse.
6. Record pulse rate accurately on TPR graph.

Optional:

7. Discuss why a patient with fever might also have a rapid pulse rate and rapid breathing.
8. Practice measuring pulse.

Integration Partner Course: Algebra I **TAAS:** M-4

Collaborative Topics: Frequency distribution tables, histograms, mean, median, mode, range

Integration Partner Activity:

1. Construction of a frequency table
2. Construction of a histogram
3. Calculation of mean, median, mode, range

Course: Algebra I

Lesson Topic: Statistics: data analysis and graphing data

TAAS: M-4

Lesson Objective: Make a frequency distribution table from data.
Make a histogram from a frequency distribution table.
Determine mean, median, mode, and range for the given data.

Materials: Raw data provided by Health Occupations Department

Activity:
1. Raw data will be organized into a frequency distribution table (intervals, tally of data, count and write frequencies, total frequencies).
2. Make a histogram for the data in the frequency table.
3. Calculate mean, median, mode, and range for the given data.

Evaluation Activity: Presentation of oral and written reports summarizing collection and analysis of given data.

Integration Partner Course: Health Occupations I

Essential Elements: 75.84 (c)(1)(H)

Collaborative Topics: Vital signs—pulse rate

Integration Partner Activity: Collect and record raw data on radial pulse rates from a minimum of 100 people.

Course: Biology I

Lesson Topic: Anatomy of Mammals: fetal pig dissection

Essential Elements: 3, 4, 4-A, 4-B, 7, 8, 10, 10-B

Lesson Objective: Students will identify organs within the representative mammal. Students will be able to relate structure and function of the organs identified.

Materials:

1. Preserved fetal pigs
2. Dissecting pans
3. Scalpels
4. String
5. Scissors
6. Forceps
7. Probes

Activity: Examine the body systems of mammals and realize how the systems are interrelated (fetal pig dissection).

Evaluation Activity: Performance test, based on identifying structures and their function.

Integration Partner Course: Health Care Sciences I

Essential Elements: 75.84 (b)(1)(G)

Collaborative Topic: Overview of body

Integration Partner Activity: Making models of the human body.

Course: Health Care Sciences I **Lesson Topic:** *Overview of body*

Essential Elements: 75.84 (b)(1)(G) Identify the basic anatomy and physiology of the eight body systems as they relate to health and disease.

Lesson Objective: Student will be able to identify terms relating to the body and describe the relationship between cells, tissues, organs and systems of the body.

Materials:

1. Skeleton
2. Torso of human body model
3. Charts of body systems
4. *Health Care Worker* by Shirley Badasch

Activity:

1. Students will identify terms relating to the body.
2. Students will make road map of body directions.

Evaluation Activity: Students will make poster, mobile, or model of human body and label parts and directions.

Integration Partner Course: Biology I

Essential Elements: 3, 4, 4-A, 4-B, 7, 8, 10, 10-B

Collaborative Topics: Anatomy of mammals—Dissection of fetal pig

Integration Partner Activity: Fetal pig dissection

Course: Health Care Sciences **Lesson Topic:** Medical terminology

Essential Elements: 75.84 (b)(2)(C) Identify basic medical terminology.

Lesson Objective: Student will be able to explain the basic components of medical terminology: prefixes, root words, suffixes and abbreviations.

Materials:

1. *Health Care Worker*, Shirley Badasch R.N., M.A.
2. *Health Occupations, Explaining and Career Planning*, Joan Birchenall and Mary Eileen Streight
3. patient charts

Activity: Time frame: one week

1. Define roots, prefixes, and suffixes of medical terminology.
2. Divide a list of words into their elements.
3. Write the meanings of abbreviations commonly used in medical record keeping.

Optional Activity: Visit the medical records department of a local health facility.

Evaluation Activity: Students will transcribe a medical record with definitions of all medical terminology and meanings of all abbreviations.

Integration Partner Courses: Biology I, English II

Essential Elements: Biology I: 3, 4, 4-A, 4-B, 7, 8, 10, 10-B
English II: 2B, 4A

TAAS: RC 1, 5; WC 3, 6

Integration Partner Activities:

1. Learning vocabulary using different learning style.
2. Administer learning style inventory.

Course: English II

Lesson Topic: Vocabulary/ Determination of Learning Styles

Essential Elements: 2 B, 4 A

TAAS: RC 1-5; WC 3, 6

Lesson Objective: Students will determine the meaning of words based on suffixes, prefixes, and roots. Students will also determine their individual learning styles.

Materials:

1. Dictionary
2. Hand-outs listing common suffixes, prefixes, roots.

Activity: Time frame: One week

1. Introduce common suffixes, prefixes, roots.
2. Place students in groups and have each group learn based on a different learning style (visual, kinesthetic, tactile, auditory).
3. Have students rotate into each different group and determine which method works best for each individual.
4. Administer learning styles inventory to determine if their stated preference matches the results of the inventory.

Evaluation Activity: Correct use of words in sentences or in class discussions as an on-going activity.

Integration Partner Courses: Biology I, Algebra I, Health Occupations Education I

Essential Elements: Biology I: 1, M, 2, 2A, 4, 5, 5-A, 5-B, 6B, 7, 8, 10
HOE I: 75.84 (b)(2)(C)

Collaborative Topics: Scientific vocabulary, medical terminology

Integration Partner Activity: Determine meanings of words based on their roots, suffixes, prefixes.

Course: Biology **Lesson Topic:** Scientific terminology and learning styles

Essential Elements: 1, M, 2, 2A, 4, 5, 5A, 5B, 6B, 7, 8, 10 **TAAS:** 1

Lesson Objective: Students will determine meanings of word roots through using individual learning styles.

Materials:

1. Tape recorder
2. Textbook
3. Flash cards
4. Vocabulary game

Activity:

1. Students will be divided into groups and each group will learn vocabulary words using a different learning style.
2. Students will rotate through all the learning styles stations.
3. Students will determine their best learning style.

Evaluation Activity: Correct use of words during Biology I course.

Integration Partner Courses: English II, Health Care Science

Essential Elements: HOE: 75.84 (b)(2)(C)
English II: 2B, 4A

Collaborative Topics: Vocabulary, medical terminology

Integration Partner Activity: Determine meanings of suffixes, prefixes, and roots of words.

Course: English II **Lesson Topic:** Ecology research

Essential Elements: 1(A-I), 2(A-G), 3(A-F), 4(A-L) **TAAS:** RC 1-6; WC 1-7

Lesson Objective: Students will identify specific environmental issues and create a project addressing an issue.

Materials:
1. Books/pamphlets provided by teacher
2. Library research materials
3. Materials students obtain from different agencies.

Activity: Time frame: five to six days

One day

1. Read science fiction story "Here There Be Tygers" by Ray Bradbury.
2. Discuss current environmental issues. Identify those which present problems that can actually be solved and discuss possible solutions.

Minimum of three days

3. Choose individual or team topics and conduct research.
4. Develop a project based on research and present the project orally in class. (project will be done for homework.)

Presentations will take 1-2 days.

Evaluation Activity: Oral presentation of environmental project.

Integration Partner Course: Biology I

Essential Elements: 1, M, 2, 2A, 4, 5, 5A, 5B, 6B, 7, 8, 10

Collaborative Topics: Effects of acid rain

Integration Partner Activity: Conduct a lab experiment simulating the effects of acid rain.

Course: Biology I **Lesson Topic:** Acid rain

Essential Elements: 1, 1A, 2C, 4, 4A, 4B, 5, 5A, 5B, 6B, 7D, 8, 9, 10

Lesson Objective:

Materials:

1. Beakers
2. Flasks
3. Bunsen burners
4. Test tube racks
5. ph paper
6. Sulfur
7. Test tubes
8. Filter paper

Activity: Perform a lab experiment which will simulate the effect of acid rain on the environment.

Evaluation Activity: Analyze and draw conclusions about effects of acid rain on the environment.

Integration Partner Course: English II

Essential Elements: 1(A-L), 2)A-G), 3(A-F), 4(A-L) **TAAS:** RC 5; WC 2, 6

Collaborative Topics: Research ecological issues

Integration Partner Activity:

1. Discuss ecological issues.
2. Conduct research on different ecological issues.

Course: English II

Lesson Topic: Application of literature to technology and society

Essential Elements: 1A, C, D, E, G, H, I, J; 2(A-G), 3(A-F), 4(A-L)

TAAS: RC 1-6; WC 1-7

Lesson Objective: Students will identify themes of *Brave New World* and apply them to current society and technological developments.

Materials:
1. *Brave New World*
2. Relevant science fiction short stories
3. Newspaper articles dealing with relevant genetic technology
4. Research materials in library
5. any necessary handouts (vocabulary, character lists, etc.)

Activity: Time frame: two to three weeks

One day

1. Discuss current technological developments, emphasizing genetics heavily (genetic engineering, cloning, etc.) and the ethics involved.

One day

2. Give an overview of *Brave New World,* emphasizing Huxley's theme and discussing both positive and negative aspects of technology.

Two weeks

3. Read and discuss *Brave New World* and any relevant short stories.
4. Choose topics for groups and design projects based on the topics (Example: specific aspects of genetic engineering and the legal/ethical aspects). Assign this in class. Give two days classtime for groupwork. Continue it for homework giving as much time as necessary.
5. Write a persuasive paper based on the results of the group project. Assign this as a homework, assignment.

Evaluation Activity: Oral presentation of persuasive speech in conjunction with the presentation of the group project.

Integration Partner Course: Biology I, TAAS Math

Essential Elements:

Collaborative Topics: Inherited genetic traits in humans.

Integration Partner Activity: Observe inherited human characteristics.

Course: TAAS Math Lab

Lesson Topic: Determine relationships between and among fractions, decimals, percentages.

Lesson Objective: Students will be able to convert table data into fraction, decimal, and percent form.

Materials:
1. The heredity table from the Biology I classes
2. Paper and pencil
3. ruler

Activity:
1. Using the heredity table, convert each "cell" to its equivalent.
   a. fractional
   b. decimal
   c. percent
2. Consolidate table for all classes.

Optional Activity: Determine mean, median, mode of various "cells."

Evaluation Activity: Students will discuss their math conversions in the heredity table format.

Integration Partner Course: Biology I, English II

Essential Elements: English II: 1A, C, D, E, G, H, I, J; 2(A-G), 3(A-F), 4(A-L)

TAAS: 1.4 (5.3)

Collaborative Topics:
1. The novel *Brave New World* and its application to the development of genetic technology and ethical issues that arise.
2. Observe patterns of human heredity and determine dominant and recessive traits.

Integration Partner Activity:
1. Discussion of genetic engineering as related to inherited human traits.
2. Observe inherited human characteristics.

Course: Biology I **Lesson Topic:** Observing human traits

Essential Elements: 75.64 (a)(2)(B)

Lesson Objective: Observe patterns of human heredity and determine dominant and recessive traits.

Materials: Students

Activity: What are patterns of human heredity? Lab.

Evaluation Activity: Students will analyze and draw conclusions about the frequency of dominant and recessive traits.

Integration Partner Courses: English II, TAAS Math

Essential Elements: 1A, C, D, E, G, H, I, J; 2(A-G), 3(A-F), 4(A-L) **TAAS:** RC 4-5, Math 1-5

Collaborative Topics: *Brave New World*

Integration Partner Activity:

1. Discussion of genetic engineering as related to inherited human traits.
2. Use raw data to convert numbers to fractions, percents, and decimals.

Course: English II

Lesson Topic: Persuasive writing/research

Essential Elements: 1 (A-J), 2 (A-G), 4 (A-L

TAAS: RC 4, 5, 6; WC 1-7

Lesson Objective: Students will be able to compose a persuasive essay on an issue involving HIV and develop a school policy.

Materials:
1. Handouts
2. Health department pamphlets
3. Research materials in library

Activity:
1. Give students surveys.
2. Discuss current controversial issues, i.e. HIV.
3. Discuss specific legal/ethical issues surrounding it.
4. Choose a specific issue and write both pro and con papers. Conduct any necessary research.
5. Develop a school policy on HIV.

Evaluation Activity:
1. Persuasive papers dealing with specific ethical/legal issues surrounding HIV.
2. School policy on HIV.

Integration Partner Courses: Biology I, Algebra I, Health Occupations Education I

Essential Elements: Biology I: 3, 4, 4A, 4B, 7, 8, 10
Algebra I: 3, 7
HOE: 75.84 (d)(1)(H)

Collaborative Topics: Biological introduction to AIDS, graphic techniques

Integration Partner Activity:
1. Develop school policy on HIV.
2. Create a frequency distribution table and scatter plot graphs utilizing policy issues questionnaire.
3. Demonstrate current practives of asepsis for body fluids

Course: Health Occupation II

Lesson Topic: Infection control (vital signs: temperature, pulse, respirations, blood pressure)

Essential Elements: 75.84 (d)(1)(H) Practice infection control as prescribed by Center for Disease Control.

Lesson Objective: Students will identify aseptic practices in handling body fluids/blood. (AIDS)

Materials:
1. *Diversified Health Occupations* text
2. Video: Med Com—Aseptic Practices
3. Lab materials: sterile gloves, goggles, syringes, specimen containers
4. Filmstrip: Handwashing Techniques

Activity: Time frame: three days

1. Review principles of asepsis.
2. Define terminology related to asepsis.
3. View video and filmstrip.
4. Demonstrate surgical/medical handwash.
5. Discuss common practices used to prevent infection.
6. Invite Public Health Service or infection control officer from health facility to speak to students about control measures implemented by government agencies.
7. Lab: Practice transfer of specimen in specimen container, gloving/gowning techniques, isolation techniques.

Evaluation Activity: Student will demonstrate correct handwashing procedure, gloving technique, and transfer of specimen using current OSHA standards related to AIDS/hepatitis.

Integration Partner Courses: Biology I, English II, Algebra I

Essential Elements: Biology I: 3, 4, 4A, 4B, 7, 8, 10
English II: 1(A-J), 2(A-G), 4(A-L)
Algebra I: 3, 7

TAAS: RC comprehension 5, 6

Collaborative Topics: Persuasive writing, introduction to AIDS, graphing techniques

Integration Partner Activity: Biology: Introduction to AIDS. Students will evaluate policy issues dealing with AIDS/HIV.
English II: Students will utilize policy issues to write persuasive paper
Algebra 1: Create a frequency distribution and scatter plot graphs.

Course: Biology **Lesson Topic:** Introduction to AIDS (Viruses)

Essential Elements: 3, 4, 4A, 4B, 7, 8, 10

Lesson Objective: Students will be able to recognize the difference between AIDS and HIV.

Materials: "Policy Issues" sheet.

Activity:

1. Distribute "Policy issues" sheet. Have students work individually to rate each policy issue.
2. Using policy issues as a basis, discuss AIDS and HIV facts and myths.

Evaluation Activity: Develop a policy for the district.

Integration Partner Courses: English II, Algebra I, Health Occupations Education I

Essential Elements: English II: 1(A-J), 2(A-G), 4(A-L)
HOE: 75.84 (d)(1)(H)

TAAS: Reading 4, 5, and 6

Collaborative Topics: Persuasive writing, graphing techniques, asepsis and infection control.

Integration Partner Activity:

1. Write persuasive papers dealing with policy issues at school.
2. Create a frequency distribution and scatter plot graphs utilizing policy issues questionnaire.
3. Demonstrate current practices of asepsis for body fluids.

Course: Algebra I/TAAS Math Lab **Lesson Topic:** Graphing techniques

Essential Elements: 3.7 **TAAS :** 12.2 13.1 13.2

Lesson Objective: Students will be able to make a frequency distribution table and scatter plot using the raw data provided by the policy issues questionnaire and form conclusions based on the product.

Materials:
1. "Policy Issues" sheet
2. Graph paper
3. Pencils
4. Rulers

Activity:
1. Have students create a frequency distribution table based on the "Policy Issues" sheet.
2. Have students create a scatter plot based on the "Policy Issues" sheet.

Optional Activities: Per cent breakdowns by question based on "Policy Issues" sheet

Evaluation Activity: The student will show and explain their graphs.

Integration Partner Course: Biology I, English II, Health Occupations Education I

Essential Elements: Biology I: 3, 4, 4A, 4B, 7, 8, 10
English II: 1(A-J), 2(A-G), 4(A-L)
HOE: 75.84 (d)(1)(H)

Collaborative Topics: Introduction to AIDS (viruses), persuasive writing, asepsis and infection control

Integration Partner Activity:
1. Write persuasive papers dealing with "Policy Issues" at school.
2. Evaluate "Policy Issues" dealing with AIDS and HIV.
3. Demonstrate current practices of asepsis for body fluids.

HIV Questionnaire

Currently, this school district does not have a policy about HIV. Therefore, you are going to develop one. Several questions must be considered before you finalize the policy. For each statement listed below, place a mark along the line which represents how strongly you feel about the issue. When you are finished, we will discuss some of the issues, and then your group will develop a policy.

Policy Issues:

1. Does the school have a responsibility to teach about HIV?

1	2	3	4	5	6	7	8	9	10
NO									YES

2. If the schools do teach about HIV, will teachers explain to students that the virus can be spread by either vaginal or anal intercourse?

1	2	3	4	5	6	7	8	9	10
NO									YES

3. Will school officials fire an employee whom they suspect is gay?

1	2	3	4	5	6	7	8	9	10
NO									YES

4. Will school officials fire an employee whom they suspect is an IV drug user?

1	2	3	4	5	6	7	8	9	10
NO									YES

5. Will school officials require mandatory HIV testing for faculty and students?

1	2	3	4	5	6	7	8	9	10
NO									YES

6. Will school officials fire a teacher who tests HIV positive?

1	2	3	4	5	6	7	8	9	10
NO									YES

7. Will students with HIV positive infections be allowed to attend school?

1	2	3	4	5	6	7	8	9	10
NO									YES

8. If HIV positive students are allowed to attend school, will age limits be imposed?

1	2	3	4	5	6	7	8	9	10
NO									YES

9. Will the school fire a cafeteria worker who is HIV positive?

1	2	3	4	5	6	7	8	9	10
NO									YES

10. Should the current law be changed to allow students, parents, and teachers to identify the HIV positive students and faculty members?

1	2	3	4	5	6	7	8	9	10
NO									YES

11. To discourage unsafe sexual practices, should school nurses dispense condoms to students on demand?

1	2	3	4	5	6	7	8	9	10
NO									YES

12. If condoms are to be distributed, should parents be notified when their son/daughter receives them?

1	2	3	4	5	6	7	8	9	10
NO									YES